



# Transportation of RCRA Hazardous Wastes

**BACKGROUND:** The Resource Conservation and Recovery Act (RCRA) and the Hazardous Materials Transportation Act (HMTA) regulate the transport of hazardous wastes. Under these statutes, specific pretransport regulatory requirements must be met by DOE before the shipment of hazardous wastes, including radioactive mixed wastes. The pretransport requirements are designed to help reduce the risk of loss, leakage, or exposure during shipment of hazardous materials and to communicate information on potential hazards posed by the hazardous material in transport. These goals are accomplished through the tracking of shipments, correctly packaging and labeling containers, and communicating potential hazards. Specific requirements include manifesting, packaging, marking and labeling waste packages; placarding transport vehicles; choosing appropriate waste transporters and shipment destinations; and recordkeeping and reporting. Finally, RCRA **Subpart CC standards** (e.g., control, visual inspection, and waste transfer requirements) designed to reduce organic air emissions from containers (e.g., tanker trucks) must be met when applicable. This Information Brief focuses primarily on the transporter requirements both for transportation within a DOE facility and using a commercial transporter to transport off-site.

**STATUTES:** Resource Conservation and Recovery Act, Hazardous Material Transportation Act

**REGULATIONS:** 40 CFR Part 260 General RCRA Requirements; 40 CFR Part 262 Subparts B,C,D,E Generator, Manifest, Pre-transport, Recordkeeping, and Exportation Requirements; 40 CFR Part 263 Transportation of Hazardous Waste Requirements; 40 CFR 264/265 Subpart CC Air Emission Standards; 49 CFR Parts 171-178 DOT Hazardous Materials Requirements; and DOE Order 5400.5 Radioactive Protection of the Public and the Environment.

**REFERENCES:**

1. Resource Conservation and Recovery Act, Environmental Guidance Program (EH-23) Reference Book, ORNL/M-1897, March 15, 1992.
2. RCRA Hazardous Waste Container Labeling, Marking, and Placarding Requirements," EH-231 RCRA Information Brief, EH-231-031/0394, March 1994.
3. Pretransport Requirements for Waste Generators," EH-231 RCRA Information Brief, EH-231-037/0394, March 1994.
4. Manifest Requirements," EH-231 RCRA Information Brief, EH-231-038/0394, March 1994 [Revised August 1997].
5. Performance Objective for Certification of Non-Radioactive Hazardous Waste," EM30, 1991.
6. Hazardous Materials Transportation Act, Environmental Guidance Program (EH-23) Reference Book, ORNL/M-1717, October 15, 1991.

## What regulations govern the transport of hazardous waste and when do these requirements apply?

40 CFR Part 263 of RCRA contains regulations governing the transportation of hazardous waste. In developing its regulations, EPA adopted most of the Department of Transportation's (DOT's) HMTA implementing regulations for the safe transportation of hazardous wastes (49 CFR 171 through 179). EPA's regulations are not completely inclusive; thus, a transporter must ensure that their operations are in

compliance with all applicable RCRA and DOT regulations. Anyone who transports a hazardous waste off-site via air, rail, highway, or water is subject to the RCRA transporter requirements, unless their shipment does not require a hazardous waste manifest [see 40 CFR 260.20(e) and (f)].

## What are the requirements for on-site transport solely within a DOE facility?

As long as the movement of the hazardous waste remains on-site, RCRA's transportation re-

quirements are not triggered. Thus, the RCRA definition of on-site is important. Transportation of hazardous wastes within a geographically contiguous property, including continuous property divided by roads, is considered on-site as long as the wastes are not transported *along* a public right-of-way. The hazardous wastes can be moved *across* the public right-of-way to gain access to the adjacent property and be considered on-site (40 CFR 260.10). RCRA also states that “non-contiguous properties owned by the same person but connected by a right-of-way which s/he controls and to which the public does not have access” qualifies as on-site (40 CFR 260.10).

Although not considered “on-site” (under the RCRA definition), there also is a regulatory exemption that may apply to the movement of wastes at a DOE facility. This exemption pertains to the transport of hazardous waste on a public right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public right-of-way [40 CFR 262.20(f)]. In these cases, the hazardous waste transportation would technically be considered “off-site,” but only certain RCRA transportation requirements would apply. Specifically, such transport of hazardous waste would be subject to the requirements in 40 CFR 263.30 and 263.31 (concerning the handling of hazardous waste discharges during transportation).

### **If wastes are transported off-site using commercial transporters, what are the responsibilities of the generator offering the waste for transport?**

Before a hazardous waste may be shipped off-site, the generator must determine:

- ❑ the proper identification of the hazardous waste (40 CFR 262.11);
- ❑ the appropriate treatment, storage, and disposal (TSD) facility, transportation mode, and carrier company capable of handling the hazardous waste shipment (40 CFR 262.12);
- ❑ the proper packaging for the hazardous waste (40 CFR 262.30);
- ❑ the necessary RCRA and DOT labeling, marking, and placarding requirements (40 CFR 262.30-262.33); and
- ❑ the information necessary to complete and sign the hazardous waste manifest for the waste shipment (40 CFR 262.20-262.23).

The generator must maintain long-term records to show the amount of hazardous waste produced, the transporters of the wastes, and the TSD facili-

ties in possession of the hazardous waste. For more information on these and other pretransport requirements, refer to References 2 and 3.

### **When selecting a commercial transporter and TSD facility, what requirements must be met?**

A generator can only offer hazardous wastes for off-site shipment to a transporter that has an EPA Identification Number [40 CFR 262.12(c)]. The designated TSD facility, and required alternative TSD facility, must also be approved by EPA for acceptance of the type(s) of wastes to be transferred [40 CFR 262.20(b)-(c)]. Refer to Reference 3 for more information on selecting a transporter and TSD facility. Besides the generator’s information, the names and EPA identification numbers of the shipper, transporter(s), and TSD facility must be noted on the manifest (40 CFR 262 Appendix). For more information regarding the manifesting requirements, see Reference 4.

### **Do states differ in their implementation of RCRA transportation requirements?**

Yes. Section 3006 of RCRA grants states the authority to develop and enforce their own hazardous waste management programs. Because states vary on their interpretations of the RCRA transportation regulations, it is important to be aware of state programs as well as the federal program. Also, the generator’s state may have different hazardous waste transportation requirements than the consignment state (the state where the wastes are being disposed) and/or the intermediate states that the wastes pass through during transport. The transporter must comply with all of these state requirements.

### **RCRA provides 90-day storage requirements for generators. Is there a similar storage provision for transporters?**

Yes. Transporters are able to store a manifested waste, in containers that fulfill the DOT requirements (49 CFR Parts 173, 178, and 179), at a transfer facility for only ten days (40 CFR 263.12). If the wastes are stored for longer, then a RCRA storage permit is necessary. EPA has defined a *transfer facility* to mean “any transportation-related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation (40 CFR 260.10, 270.2).”

### **If a release of hazardous waste occurs during transport, what requirements must the transporter meet?**

RCRA views the cleanup of “accidental or intentional spilling, leaking, pumping, pouring,

emitting, emptying, or dumping of hazardous waste into or on any land or water” as the transporter’s responsibility (40 CFR 260.10). The transporter regulations are designed to protect human health and the environment. The foremost responsibility of the transporter is to notify the appropriate authorities [40 CFR 263.30(c)-(d)].

The transporter must notify the National Response Center [(800) 424-8802 or (202) 426-2675] if a hazardous waste discharge results in:

- ❑ death;
- ❑ hospitalization;
- ❑ property damage exceeding \$50,000;
- ❑ fire, breakage, spillage, or suspected contamination involving radioactive materials;
- ❑ fire, breakage, spillage, or suspected contamination involving etiologic agents;
- ❑ danger to life at the site [49 CFR 171.15(a)]; or
- ❑ release of a reportable quantity of a CERCLA hazardous substance [40 CFR 302.6(a)].

Hazardous waste releases from water transport must give the same notice as given for oil discharges (33 CFR 153.203).

The second step for the transporter is to clean or contain the situation so the hazardous waste will not pose a threat to human health or the environment (40 CFR 263.31). Approval by federal, state, or local officials may be necessary before cleanup can begin. The government authority in control of the situation can bring an unrelated transporter that does not have an EPA identification number to remove the discharged waste [40 CFR 263.30(b)].

A follow-up report must be written by the transporter and sent to the Office of Hazardous Materials Regulations, Material Transportation Bureau, Department of Transportation, Washington, D.C. 20590 (49 CFR 171.16). The report must include the quantity of waste removed from the scene, where the contaminated materials were sent, the manner of disposition of any remaining waste, and a copy of the waste manifest [49 CFR 171.16(a)].

### **What restrictions or considerations relate to the use of different transport modes?**

Certain hazardous materials are restricted from transportation regardless of the transportation mode, while others can be transported only by select modes. The Hazardous Materials Table (HMT) in 49 CFR 172.101 provides the proper transportation mode for a given hazardous waste.

The Hazard Class column of the HMT identifies materials that are “forbidden” for transport via any mode. Columns 9(a) and (b) note the materials that are restricted from air transport via freight or passenger aircraft (see also 49 CFR 175). Restrictions on vessel transportation are located in column 10(a) and (b) of the HMT and described in 49 CFR 176.

Special requirements apply to rail or water transporters of any hazardous waste. Because these transportation modes use intermediate carriers and have extensive tracking and information systems for intermodal transportation, shipping papers can be substituted for RCRA manifests. Also, signatures by the intermediate transporters are waived when using water or rail for similar reasons.

### **Are there any special requirements for transportation of radioactive mixed waste (RMW)?**

DOE restricts off-site management of RMW through DOE Order 5400.5 *Radiation Protection of the Public and the Environment*. All radioactive wastes and RMW must be disposed of at a DOE facility, unless DOE grants a specific exemption for that waste (Reference 5). If granted an exemption, RMW can be treated off-site at a licensed commercial TSD facility that has the required RCRA permits and a Nuclear Regulatory Commission or a state license for the radionuclides being shipped. A transporter must have an EPA Identification Number to ship radioactive and mixed wastes between the generator and TSD facilities. The generator must keep records on the license(s) of the transporter and TSD facility and the certification that the mixed waste shipment meets the TSD’s acceptance criteria.

**Questions of policy or questions requiring policy decisions will not be dealt with in EH-231 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning this Information Brief to Bill Fortune, RCRA/CERCLA Division, EH-413, (202) 586-7302, or [william.fortune@eh.doe.gov](mailto:william.fortune@eh.doe.gov).**

